N431 CARE PLAN #1

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Lakeview College of Nursing

N321: Adult Health II

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10/10/2024

Demographics

Date of Admission	Client Initials	Age	Biological Gender
10/03/2024	L. G.	85	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Retired (Teacher)	Single	Tape, Sulfa drugs
Code Status	**Height**	**Weight**	
Full Code	63 in	53.1 kg	

Medical History

Past Medical History: Benign essential hypertension, Mixed anxiety and depressed mood disorder, Constipation, Hyperlipidemia, Iron deficiency anemia, Gastrointestinal reflux disease, Chronic hearing loss, Cataracts of both eyes, Prediabetes

Past Surgical History: Arthroplasty hip total anterior approach (2/25/21), Cataract extraction (2020), Hip replacement (2018), Acute tear of meniscus right knee (*No date), Hysterectomy (*No date), Oophorectomy (*No date)

Family History: Mother – Diabetes mellitus

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Former smoker – Cessation (2021), a smoker for 30 years, ½ pack a day. The patient denies any alcohol or drug use.

Education: Bachelor's degree in education

Living Situation: Lives at a long-term nursing care facility

Assistive devices: Walker/cane

Admission History

Chief Complaint: Shortness of breath (SOB), Weakness, Chest pain, Cough

History of Present Illness (HPI)– OLD CARTS

The patient presented to the emergency department on 10/03/2024 with complaints of SOB, increased weakness, and chest pain due to a cough that “would not go away”. The patient stated that symptoms began the prior day around 1500 and that she woke up with increased weakness and SOB that caused her to come to the emergency department. The patient feels weak all over and is hardly able to ambulate around the facility with her walker before being too SOB. Weakness and SOB are more prevalent when trying to complete daily living activities and upon exertion, whereas coughing is constant. The patient describes the coughing as, “aching pains in the center of my chest and ribs”. The patient states that the only time they find some relief is when lying down or taking a nap. When asked about the severity the patient stated that she is just “not comfortable”. The patient denies any treatment before coming to the emergency department.

Admission Diagnosis

Primary Diagnosis: Pneumonia

Secondary Diagnosis (if applicable): Rhinovirus infection, Urinary tract infection (UTI)

Pathophysiology

Pneumonia is inflammation of lung tissue where purulent, inflammatory cells and fibrin fill the alveolar sacs (Capriotti, 2022). Inhalation of bacteria containing droplets is the most common cause of pneumonia. Once inhaled, these droplets travel into the upper respiratory tract, entering the lung tissue and adhering to surrounding tissues (Capriotti, 2022). This action initiates an inflammatory response within the cells that spreads to both the alveoli and the lower respiratory tract system. Neutrophils begin to move out of the vessels as vasodilation occurs, and goblet cells secrete mucous (Capriotti, 2022). Some alveoli cannot properly function now due to excess mucous secretions, causing impairment of proper gas exchange (Capriotti, 2022).

Clinical presentation of pneumonia may include a sudden onset of cough, mucous buildup, fever, chills, weakness, chest pain, dyspnea, hemoptysis, headache, nausea, vomiting, and activity intolerance (Capriotti, 2022). The patient was primarily presented with a non-productive cough, pleuritic chest pain, dyspnea, weakness, and activity intolerance. Upon physical examination of the patient with pneumonia, crackles were auscultated in the right upper lobe, as well as a clear observation of labored breathing. It is also important to note that there may be a dullness to percussion when performed properly.

The primary diagnosis of pneumonia was established with the patient by performing a chest x-ray. Interpretation of the chest x-ray by the provider read, “Patchy opacities in the right upper lung concerning for pneumonia”. A chest x-ray is the most important diagnostic test in the diagnosis of pneumonia. The patient also demonstrated an increased WBC and absolute neutrophil count which illustrates an inflammatory response within the body.

Treatment of pneumonia for this patient focused on an order for doxycycline, ceftriaxone, albuterol, fluids, and physical/occupational therapy. The primary goal of this treatment is to treat the infection, maintain airway patency, rebuild muscle strength, and get the patient back to a level of independence where they can go back to performing most activities of daily living on their own. Deep breathing exercises hyperventilate the alveoli and keep them from continuing to collapse, improving overall lung expansion and facilitating proper tissue oxygenation (Lynn, 2019). Once the airways are clear of secretions the alveoli can properly perform gas exchange, which will increase the patient's perfusion and improve bodily function.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

Lynn, P. (2019). *Taylor's clinical nursing skills: A nursing process approach* (5th ed.). Wolters Kluwer.

Laboratory/Diagnostic Data

Lab Name	Admission Value	Today's Value	Normal Range	Reasons for Abnormal
WBC	21,300	11,800	5000-10,000	WBCs are elevated in the indication of infection and inflammation. The patient's diagnosis of Rhinovirus and Pneumonia cause this abnormal elevation (Pagana et al., 2022).
Neutrophil Absolute	18,300	8,000	2,500-7,000	In correlation of increased WBCs, absolute neutrophil count is increased due to the infectious and inflammatory response triggered by Rhinovirus and Pneumonia (Pagana et al., 2022).
UA WBC	87	N/A	<2-5	WBCs are elevated in urine in

				the presence of a urinary tract infection (Pagana et al., 2022).
UA Bacteria	Trace (A)	Negative	Negative	A trace result indicates the presence of bacteria in the urine called bacteriuria, indicating a urinary tract infection (Pagana et al., 2022).
Staphylococcus PCR	Detected (A)	Not Detected	Not Detected	A positive detected PCR may indicate staphylococcal pneumonia. This results from infection of the staph bacteria (Pagana et al., 2022).

Diagnostic Test & Purpose	**Clients Signs and Symptoms**	**Results**
EKG	SOB, weakness	Normal sinus rhythm with arrhythmias
Chest x-ray	SOB, tachypnea	Patchy opacities in the right upper lung concerning for pneumonia
CT Brain/Head w/o contrast	Weakness	No acute intracranial

		abnormality

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). *Mosby's diagnostic and laboratory test reference* (15th ed.). Mosby.

Active Orders

Active Orders	Rationale
Wound Care	Cleanse with barrier cream and application of Mepilex pad to prevent progression of pressure injury and skin breakdown on coccyx
Preventative Skin Care	Application of Mepilex pad to coccyx to prevent progression of pressure injury and skin breakdown
Resuscitation Status Full Code	To initiate live saving measures if necessary
Vital Signs	Routine monitoring every 4 hours
Occupational Therapy	For improved function of basic activities of daily living
Physical Therapy	For improved balance and assistive device training
Turn Patient/Float Heels	To prevent pressure injury and skin breakdown on heels and coccyx
Ambulate	To help reduce the complications of

	pneumonia, in addition to improving muscle strength and respiratory drive
Up w/Assistance	Fall risk concerning generalized weakness
Patient Isolation (Droplet/Contact)	Due to the diagnosis of Human Rhinovirus
Intermittent Pneumonic Compression Devices	To improve blood flow and reduce the of developing a blood clot while at bed rest
Braden Assessment	To assess the patient's risk for skin breakdown due to decreased mobility
Morse Fall Risk Assessment	To assess the patient's risk for falling due to increased weakness and need for assistive devices when ambulating
Regular Diet	To meet the necessary nutritional needs

Medications

Home Medications (Must List ALL)

Brand/Generic	Cetirizine/Zyrtec	Atorvastatin/Lipitor	Docusate/Colace
Classification	Pharmacological: Histamine-1 antagonist Therapeutic: Antihistamines	Pharmacological: HMG-CoA reductase inhibitor Therapeutic: Antihyperlipidemic	Pharmacological: Osmotic laxatives Therapeutic: Laxatives
Reason Client Taking	To relieve allergy symptoms	To control lipid levels due to history of hyperlipidemia	To help reduce the occurrence of constipation
List two teaching needs for the medication pertinent to the client	Educate the patient to avoid drinking alcohol due to causing increased drowsiness. Educate the patient that some of the liquid products contain sugar, so to be aware of blood	Advise patient to monitor blood glucose levels prior due to history of prediabetes. Direct the patient to be sure to take at the same time every day to maximize drug effects.	Educate the patient that electrolyte imbalance may result from excessive use. Educate the patient to discontinue and notify a provider immediately if bleeding

	sugar before taking it.		occurs, or if a bowel movement fails after multiple uses.
Key nursing assessment(s) prior to administration	Assess the patient for dizziness or drowsiness. Take the patient's blood pressure and assess their level of gait.	Check the patient's blood glucose level and liver function tests prior to administration.	Monitor the patient's electrolyte levels and auscultate bowel sounds.
Brand/Generic	Torsemide/Demadex	Trazadone/Desyrel	
Classification	Pharmacological: Loop diuretic Therapeutic: Antihypertensive, diuretic	Pharmacological: Triazolopyridine derivative Therapeutic: Antidepressant	
Reason Client Taking	To reduce the chance of hypertension and heart failure	To treat a history of depressive disorder	
List two teaching needs for the medication pertinent to the client	Educate the patient on moving slowly when getting up to avoid the risk of orthostatic hypotension. Advise the patient to maintain adequate fluid intake and watch for the onset of vomiting and diarrhea.	Caution patient of taking any NSAIDS with this medication before first talking to their provider. Educate the patient that taking this medication on an empty stomach may cause increased dizziness or light-headedness.	
Key nursing assessment(s) prior to administration	Monitor the patient's potassium level due to the mechanism of loop diuretics. Ensure that the patient has a new set of vitals and are attached to the heart monitor prior to administration.	Monitor the patient closely for possible serotonin syndrome. Make sure the patient is on a cardiac monitor and watch closely for any possible arrhythmias.	

Hospital Medications (Must List ALL)

Brand/Generic	Albuterol/AccuNeb	Vistaril/Hydroxyzine	MiraLAX/Polyethylene glycol
Classification	Pharmacological: Adrenergic Therapeutic: Bronchodilator	Pharmacological: Piperazine derivatives Therapeutic: Antihistamines	Pharmacological: Osmotic laxatives Therapeutic: Laxatives
Reason Client Taking	To prevent broncho-spasms	To treat the patient's allergy symptoms and anxiety	Used to treat occasional constipation or irregular bowel movements
List two teaching needs for the medication pertinent to the client	Educate the patient on the proper use of inhaler. Warn the patient about the risk of becoming less effective when exceeding the prescribed dose or frequency.	Instruct the patient not to operate a vehicle after taking this medication due to increased tiredness. Educate on the risk for addiction when taken too frequently.	Educate the patient on the risk of electrolyte imbalance from excessive use. Educate the patient to discontinue and notify a provider immediately if a bowel movement fails after multiple uses.
Key nursing assessment(s) prior to administration	Assess the patient's respiratory rate, oxygen saturation, and lung sounds prior to administration.	Ensure the patient is on a cardiac monitor to observe for possible cardiac arrhythmia.	Monitor the patient's electrolyte levels and auscultate bowel sounds.

Brand/Generic	Ceftriaxone/ Rocephin	Doxycycline/Oracea
Classification	Pharmacological: Third-generation cephalosporin Therapeutic: Antibiotic	Pharmacological: Tetracycline Therapeutic: Antibiotic
Reason Client Taking	To treat bacterial infection from Staphylococcus aureus and UTI	To treat bacterial pneumonia

List two teaching needs for the medication pertinent to the client	Educate the patient on notifying the provider immediately if they notice watery, bloody stools. Educate the patient of risk factors of taking diarrheal medications, making episodes last longer and worsen.	Instruct patient to drink an adequate amount of fluid when taking to reduce the risk of esophageal ulceration. Inform the patient that it is normal if their urine becomes a darker yellow or brown color.
Key nursing assessment(s) prior to administration	Auscultate the patient's bowel sounds and obtain culture and sensitivity reports prior to administration.	Monitor the patient for signs and symptoms of intracranial hypertension and increased diarrhea.

Prioritize Three Hospital Medications

Medications	Why this medication was chosen	List 2 side effects. These must correlate to your client
1. Doxycycline	This medication was chosen for its antibiotic effect in treating the patient's admitted diagnosis of pneumonia	1. Thrombocytopenia (Bleeding risk, history of iron deficiency anemia) 2. Esophageal ulceration (risk for increased SOB)
2. Albuterol	This medication was chosen for its ability to help open the patient's airway and help return respirations to a more acceptable rate	1. Nervousness and shakiness (May increase the patient's level of anxiety) 2. Rapid breathing/palpitations (Would counter the therapeutic effect and increase patient's respiratory effort)
3. Ceftriaxone	This medication was chosen	1. Acute renal failure (Could

	for its use in treating Staphylococcus aureus infection and UTI's	lead to a more serious UTI) 2. Allergic pneumonitis (May cause the patient's lungs to become more inflamed)

Medications Reference (1) (APA)

Learning, J. &. B. (2023). *2023 Nurse's Drug Handbook*. Jones & Bartlett Learning (22nd ed.).

Physical Exam

HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:** **Infection Control precautions:** **Client Complaints or Concerns:**	- Alert and responsive - Orientated to person, place, situation, time - Observable respiratory distress and pain from coughing - Appropriately dressed - Droplet/Contact precautions - Complains of SOB, general weakness, and cough
VITAL SIGNS: **Temp:** **Resp rate:** **Pulse:** **B/P:** **Oxygen:** **Delivery Method:**	- Temp: 36.4 C - Respiratory Rate: 22 - Pulse: 108 - B/P: 110/72 - Oxygen: 93% - Delivery method: Room air
PAIN ASSESSMENT: **Time:** **Scale:** **Location:** **Severity:** **Characteristics:** **Interventions:**	- Time: 0825 - Scale: Numerical scale - Location: Chest - Severity: Moderate - Characteristics: "uncomfortable" - Interventions: Albuterol, Tylenol, and comfort measures
IV ASSESSMENT: **Size of IV:** **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:** **Fluid Type/Rate or Saline Lock:**	- Size: 20 gauge - Location: Right forearm - Date: 10/03/24 - Patency: IV is patent, no occlusion - No signs of erythema or drainage - Dressing: Intact, clean, dry, secured properly to patient - Fluid Type/Rate: No fluids, IV saline

	locked
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	- Skin color: Usual for ethnicity - Character: Dry and intact - Temperature: Warm - Turgor: elastic, returns to original shape - Rashes: None - Bruises: None - Wounds: Nonblanchable skin on coccyx area - Braden Score: 18/23 (Patient has slightly limited sensory perception, occasionally moist, walks occasionally, slightly limited mobility, adequate nutrition, and potential problem for friction and shear) - Drains present: None - Type: N/A
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	- Head/Neck: Symmetry of skull and face - Ears: Hearing loss - Eyes: Vision intact - Nose: No septum deviation, structure symmetric, no nasal drainage - Mouth/Teeth: Teeth intact, mucus membranes pink and moist .
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☐** **Edema Y ☐ N ☐** **Location of Edema:**	- Heart Sounds: S1 and S2 heard, no murmurs - Normal sinus rhythm with arrhythmia - Peripheral Pulses: 3+ normal - Capillary Refill: Less than 2 seconds - Neck Vein Distension: None - Edema: None - Location: N/A
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	- Respirations: Labored - Respiratory Pattern: Tachypnea - Breath Sounds: Coarse crackles bilaterally - Lung aeration: Left greater than the right - No visible use of assessor muscles
GASTROINTESTINAL: **Diet at home:** **Current Diet:**	- Diet at home: Regular diet - Current Diet: Regular diet - Tolerating: Client is tolerating diet

Is Client Tolerating Diet? **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☐** **Nasogastric: Y ☐ N ☐** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	- Height: 63 in - Weight: 53.1 kg - Bowel Sounds: Active - Last BM: 10/06/24 - Palpation: No pain or masses - Distension: None present - Incisions: N/A - Scars: N/A - Drains: N/A - Wounds: Nonblanchable area on coccyx - Ostomy: N/A - Nasogastric: N/A - Size: N/A - Feeding Tubes/PEG Tube: N/A - Type: N/A
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	- Color: Yellow/Orange - Character: Cloudy - Quantity of Urine: No outputs recorded - Pain with Urination: None - Dialysis: N/A - Inspection of Genitals: Normal findings - Catheter: None - Type: N/A - Size: N/A
Intake (in mLs **Output (in mLs)**	- Intake: No input recorded - Output: No output recorded
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:** **Activity Tolerance:** **Independent (up ad lib)**	- Neurovascular: Status: Nail beds pink, no discoloration of skin, peripheral pulses normal upon palpation - ROM: Generalized weakness of arms and legs - Supportive Devices: Walker/Cane - Strength: 3-active motion against gravity with weakness - ADL Assistance: Yes - Fall Risk: Yes - Fall Score: 60 (Patient has a secondary

Needs assistance with equipment **Needs support to stand and walk**	diagnosis of UTI which may cause altered mental status of confusion, uses a walker/cane, IV lock, and weak gait) - Mobility: Needs assistance with equipment
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	- MAEW: No - PERLA: Yes - Strength Equal: No (Legs and Arms) - Orientation: Oriented to person, place, time, situation - Mental Status: Normal, as expected - Speech: Clear - Sensory: Chronic hearing loss - LOC: Alert
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	- Coping Methods: None - Developmental Level: As expected for age - Religion & What it means: Christian, the patient stated "I used to attend church every Sunday but no longer do because of my living situation" - Personal/Family Data: Lives at a long-term nursing facility. The patient has both a son and daughter who both check in regularly and visit. -

Discharge Planning

Discharge location: The plan is to discharge the patient back to the long-term nursing care facility so that she can be properly cared for by licensed personnel.

Home health needs: This patient does not have a home health nurse. The patient receives assistance when needed by staff at the long-term nursing care facility.

Equipment needs: The patient utilizes the use of a walker/cane when getting up to help with balance and gait.

Follow up plan: The patient is to follow up with their primary care physician the following week to document their progress with physical and occupational therapy exercises. This therapy is important to the plan of care to ensure the patient regains strength and motivation.

Education needs: The patient is aware of their diagnosis of Rhinovirus, pneumonia, and a UTI. Physical and occupational therapy will educate and work with the patient on active and passive range of motion exercises. The patient is instructed to finish their antibiotic regimen to ensure effective treatment of their UTI. The patient was told to return to the emergency department with any worsening respiratory symptoms or weakness.

Nursing Process
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Outcome Goal (1 per dx)**	**Interventions (2 per goal)**	**Evaluation of interventions**
Impaired gas exchange related to inflammation as evidenced by alterations in breathing pattern and hypoxemia	This diagnosis was chosen due to the patient's diagnosis of pneumonia, weakness, and increased respiratory rate	The patient will maintain a respiratory rate within their baseline and perform relaxation techniques every 4 hours	Instruct the patient to turn, cough, and deep breathe to prevent atelectasis. Auscultate lung sounds and obtain respiratory vital signs	The patient's respiratory rate stayed within the baseline and the patient did not experience any more episodes of dyspnea

			every 4 hours.	
Ineffective airway clearance related to secretions in the bronchi and alveoli as evidenced by SOB and crackles	This diagnosis was chosen because crackles were auscultated in the right upper lung, and the patient was diagnosed with both Rhinovirus and Pneumonia	The patient will maintain a patent airway for their stay and can demonstrate 3 proper airway clearance techniques by the end of the shift.	Suction the patient as needed to help pull mucous secretions from the airway. Encourage movement and positioning to help break up secretions and promote optimal breathing.	The patient maintained a patent airway and performed 3 appropriate breathing techniques to help a productive cough in excreting mucous
Impaired physical mobility related to activity intolerance as evidenced by exertional dyspnea and postural instability	This diagnosis was chosen because the patient presented with increased weakness and SOB upon exertion	The patient performs ROM at least once per shift as tolerated to improve mobility	Educate the patient or perform both active and passive ROM exercises. Assist the patient in getting out of bed and ambulating at least once per shift.	The patient maintains muscle strength and joint ROM, showing no evidence of thrombus formation or increased weakness
Risk for adult pressure injury related to pressure over a bony prominence as evidenced by decreased physical activity and generalized weakness	This diagnosis was chosen due to the patient having a nonblanchable area over their coccyx with increased weakness and altered mobility	The patient's bony prominences will have limited contact with the bedding and mattress and rotated every 2 hours for the duration of their stay	Inspect the patient's area of skin every shift for redness and blanched. Keep the patient's skin dry and clean and cover sight with a Mepilex pad.	The patient's skin remained intact, with no more areas found with nonblanchable spots

Other References (APA):

Phelps, L.L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer